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THE FARMER.

SATURDAY, DECEMBER 21, 1833.

POSTS PLANTED TOP-END DOWNWARDS.

The 3d volume of the Memoirs of The Philadelphia Society for promoting Agriculture, contains an account of some *posts planted top-end downwards* which were more durable than some others which were set in the common mode; and understanding that one of our friends had successfully repeated the experiment, we wrote to him for the particulars. The following is his statement:

"The inverted posts were all sawed from two trees, the logs having had but little taper, and they were sawed wedge-shaped, consequently *one half* were cut each way,—that is, the top ends of one half were larger, and we set the larger ends in the ground. This was done in the fall of 1817 and the spring of 1818. There were about sixty pannels or posts altogether, which were taken up in 1830-31-32. From my best recollection about one-third of those that stood butt-end down, were in *tolerable preservation*, while of those inverted about two-thirds were in *better preservation* than the one-third just referred to; and a number of them, except half an inch on the outside next the earth, were quite sound, and decidedly in better condition than any of the former kind."

From the account given in the Memoirs we learn that the inverted posts were forked or knotty; and as these are the most durable parts of timber, we thought rather lightly of the discovery. The evidence which we now present to our readers however, is more pointed than any thing else that we have seen on the subject; yet we do not understand why one-third of the inverted posts, and two-thirds of the others, should be more decayed than the rest: and we should be better satisfied with an experiment on posts sawed from one single log or *cut* of straight-grained timber.

CANAL BOATS,

Constructed upon the new principles to which we lately made reference,(page 282,) are in operation in England as well as in Scotland. We have been shown a letter from Lancashire, England, which states, that boats now ply upon their canals, at the rate of 10 and 12 miles per hour, drawn by horses, which are relieved by a fresh team at the end of every five miles. The boats are 60 feet long, and five feet wide; built of *sheet iron*, covered with a canvass awning, carrying 100 passengers, and draw only two feet water. We may soon expect to see this improvement in boats adopted upon our canals. It will reduce the time of a passage from Albany to Buffalo to 36 or 40 hours; and must ultimately affect the value of rail road stocks, upon routes parallel with canals. B.

HINTS TO FARMERS.--NO. XI.

I don't know a principle more important to be cherished, by all ages and conditions, than an habitual reliance, under Providence, on one's own exertions, for the comforts and enjoyments of life, and the respect and good will of society. Stimulated by this principle, and governed by a rigid adherence to honesty and virtue, the mind and body are kept in healthful exercise, and the best faculties of our nature are called into action. How many of our first men have earned a name for usefulness, and risen from poverty to wealth, by the practice of this salutary rule. And how many others can we recognize, who have sunk into indolence and vice, and lost the dignity of free men, from the want of its vivifying influence—from a slothful dependence upon patrimonial or public aid, for a character and for subsistence. Wealthy parents are apt to forget, and their sons often do not learn to appreciate, till too late, the importance of those habits in youth which can alone secure comfort and respectability in manhood. Neither our fortures nor virtues are likely to descend, unaccompanied by the habits which procured and established them, as patrimonies to our children.

The mutability of fortune is thus beautifully described, I may say drawn, by the pen of KENNEDY, in his late Address before the American Institute:

"Our country is a country of busy men. Whatever gives facility and expansion to labor, benefits every class of the community. Unlike the European States, we have no piles of hoarded wealth to be transmitted in mass to our posterity. Opulence, among us, is a gilded pyramid that stands upon a pedestal of ice, and its foundations are perpetually melting in the sun:—the stream that flows from them may fertilize the land, and may spread bloom and beauty over barren places; but the pyramid itself falls in its appointed time, to be built up again by other hands and to adorn other sites. Our laws, which forbid the accumulations of hereditary treasure, have reiterated to the American citizen that "sad sentence of an ancient date,'—that, 'like an Emmet he must ever moil,'—and they have promised to labor fulness of honors. In providing, therefore, for the posterity of industry, we but hew out for ourselves and our posterity a better and more auspicious destiny."

Frank Stevens was the youngest of seven sons, whose common father was considered a man of some fortune, and he belonged withal to one of the learned professions. The elder boys, left pretty much to their own guidance, grew up in habits of indolence, and failed to raise, upon a good farm, the necessary provisions for the family. Frank, finding himself taxed with all the chores, and most of the labor on the farm, resolved to *take care of himself*. With this view he applied, at 14, to be put to a trade; and although rather humiliating to family pride, he succeeded in obtaining his parents' consent. From that moment Frank abandoned all hope of family aid; and resolutely determined to depend on his industry and good conduct alone for success in life. Without detailing his history, it is sufficient to say, that he has been eminently successful; and now enjoys a goodly share of the comforts of life, and of the respect of all who know him. He supported his aged parents during the last years of their lives; and has been the happy instrument of relieving his brothers from pecuniary embarrassment. Frank has often told me, in relating his adventures, that but for the early determination he made, to rely wholly upon himself, he should not now, probably have been worth a sous, in money or reputation. And he has settled it as a maxim in his own mind, that *a sprout is not likely to do so well, or produce so fine fruit, when left to grow under the shade of its parent tree, as when early removed, and accustomed to depend upon its own roots for nourishment and support.* My observation in life has induced me to believe that Frank's rule is not far from being true.

To the enterprising young farmer and mechanic, the example of Frank Stevens should not be lost. Habits of youth, be they good or be they bad, almost invariably retain an influence through life. The young mind is like sheet a of white paper, on which every one writes his own character, which it is extremely difficult in after times to alter or obliterate. It is the acquisition of knowledge, and the useful application of time, that elevates the civilized above the savage state; and the farther we would be from the latter, the greater should be our exertion to be wise and virtuous. The public are ever most disposed to help them who evince an ability to help themselves. B.

FRUIT GARDENS.

In our last paper we spoke of the situation of FRUIT GARDENS, and of concealing ripe fruit as much as possible from dishonest eyes. The man who undertakes to cultivate the best kinds, works to a great disadvantage without an enclosure appropriated for this purpose. We will suppose that he has procured an apricot tree; *where can he set it?* He may plant it in some vacancy in his orchard. But this tree is small and his apple trees are large. It becomes very convenient to turn in a yoke of oxen for an hour or so, and the tree loses its top. Or the sheep in passing through, may stop to decorticate it. Should it escape these dangers, who is to have the fruit? the owner? or his neighbor's boys? for be it well understood that a common fence, though eight rails high and double ridered, is no bar to the practice of steering across lots. We have seen rare fruit become the point of intersection for various lines drawn in different directions by the worthless of the neighborhood; and as "a poor excuse is better than none," they always have it at their tongue's end.

O, he may plant it in his door yard. Undoubtedly; and with care to keep the ground mellow for two feet around, it may grow; and with a little more care, it may bear fruit; but as it ripens in full view of every person that approaches the house, its chance to acquire that degree of ripeness which developes its *highest flavor*, becomes very small; and after some picking and plundering, the owner thinks it best to save *the remainder*, by bringing them into the house to

mellow. A poor alternative! It is a serious fact that many people have never eaten ripe fruit of the rarer kinds, although they own the trees.

There is another way left indeed: he may plant it in his kitchen garden. This is a very common practice; and in a few years his culinary vegetables are spoiled by the spreading shade. From this difficulty he may be extricated by converting it into a FRUIT GARDEN; but as this is the result of necessity, not judgment, it may be very inconvenient; or the situation may be very unsuitable. Our advice to our friends, is therefore to proceed more systematically; and to lay off a piece of ground at once, for a FRUIT GARDEN.

For the Genesee Farmer.

HIGHWAYS—No. XIII.

In the course of a short journey in a light wagon, I lately came to a muddy spot in the road, into which a pile of stones, many of them as big as a man's head, had been recently thrown, forming a heap across the whole beaten track. On these the horse was compelled to mount, sticking his feet between them as he could, and scrambling over them as he might. This kind of work is called *mending the road!* It is to be observed that these stones were not put there to be broken up, in the manner of M'Adamizing, but to be preserved whole and entire, for the benefit of all travelers, until scattered by hoofs and wheels, and finally buried in the mud.

In what place or age of barbarism the practice originated, it would be hard to tell. Possibly some mountain road of broken rock, has been preferred to the boggy streams that crossed the way, and the latter was made to engorge such fragments. The habit of doing what was learned in early days, seems to be the only reason for continuing so vile a custom in a land like ours. A mind, capable of turning in it one useful thought, might discover the impropriety of this course. Why are rail roads, the best of all possible roads? Because their smooth iron tracks offer no inequalities or obstructions to the wheels. And why are loose stone heaps, the worst of all artificial roads? Exactly for the contrary reason. These two kinds constitute the extreme of road-making—the best and the worst—as far asunder as the poles—and they ought to be kept so, not to appear within the boundaries of the same country.

Such a deposit is contrary to the law which requires that all *loose stones* shall be thrown from the beaten track. It is a downright nuisance; the statute ought to make it penal; and the Grand Jury should be directed to make diligent inquest, and to present all such offences against the peace and dignity of the State. The circumstance shows however, what kind of agents are employed to expend our road taxes; and what little hope there is for any improvement under the present system.

VIATOR.

GRANT THORBURN.—Russell & Co. booksellers, Boston, have just published the Life of Grant Thorburn, the original of Galt's Lawrie Todd. It is said to be an amusing autobiography, which all those who have spent a few hours in his well-known seed-store in New York, will readily believe.

NEW PLASTER BED.—An inexhaustible bed of superior gypsum or plaster, has been discovered on the Cascadilla, near the village of Ithaca, and proves equal to that from Nova Scotia.

For the Genesee Farmer.

THE BLACK TONGUE.

MR. L. TUCKER—I have seen in "The Farmer," directions for treating the Black Tongue; hoping to be able to do some good I send you the directions, given me by a medical gentleman of high and well deserved reputation. Take strong vinegar, red pepper, sage and salt; get the strength by heating over a slow fire; while lukewarm by means of a cloth on the end of a stick wash the mouth very often and thoroughly. This decoction should be very strong of pepper and salt.

The ingredients of this wash may seem to a person who never tried them as harsh to be applied to raw flesh. In answer to such surmises the writer of this would say, he has known the wash applied to the throats of men with the best success. That this wash has been successful in curing the Black Tongue there is no doubt, in every case in which it has been tried; I have heard of three cases—always arresting the disease, and in a few days the horse would get well.

On the point of bleeding, I think it ought not to be done in every case—the state of the pulse ought to say whether it is necessary; and as every owner of horses does not know how many pulsations in a minute a horse should have, I will say that fifty and over is a high fever.

On the subject of doctoring horses and cattle, I think ignorance very generally prevails. Some years since I commenced business and became the owner of horses. When one of my horses became diseased, I would apply to some of the "Horse Doctors" of my acquaintance. I soon became satisfied of their ignorance—it being generally as safe to let a horse alone as to trust him in the hands of one of these "DOCTORS."

I have become, to a great extent, my own Farrier,—asking advice of discreet men, and believing as I do, that the same symptoms in the horse, in most cases, require the same course of treatment that they do in man, I think the advice of a good physician the best authority. Why have we not educated men to give their attention to the diseases of horses and cattle? There are such in Europe.

ONONDAGA.

[The communication promised in a private note accompanying the above, will be thankfully received. Will not the writer furnish us articles on other subjects also?—*Ed. Gen. Far.*]

For the Genesee Farmer.

I have cultivated the bay berry (*Myrica cerifera*) sometimes called the wax or candle-berry myrtle, and find it to grow and bear well in the garden. It is of slow growth however, and whether it would be more luxuriant, in a wet soil, or not, I have no way at present to determine. It is my intention to try if it will pay a reasonable rent for the ground it occupies. My plants are from fifteen inches to two feet in height, and the branches are well lined with fruit.

Elliott says, "This tree bears its small gray fruit *in great profusion*. These little drupes appear to the eye, dry and juiceless, but by boiling, a wax of a very pleasant flavor, is extracted from them, which is used in the manufacture of soap and candles."

In South Carolina this plant is evergreen, furnishing one instance among many that might be cited, of a deciduous shrub becoming an evergreen in a warmer climate; or, of an evergreen dropping its leaves on the approach of a severe winter. Some of the leaves of mine, near the ground, are yet green; but from the higher branches, they have all withered and fallen.

A PRACTICAL GARDENER.

GOOD MANAGEMENT.

The Ohio Repository furnishes us the following particulars of the product of 15 acres of improved land. It says:

Mr. *Thomas Gibbons* of Harrison Co. O. has a farm of 20 acres of land, 15 of which is improved: He keeps 3 cows, sells 12 lbs. of Butter per week, and from 50 to 60 lbs. of cheese per annum. He killed 2200 lbs. of pork; sold 1723 lbs., and keeps 7 hogs over winter. He raised 100 bushels of wheat, and 2½ acres of corn; mowed 3 tons of clover hay and one of timothy, and has from 7 to 9 bushels of clover seed for sale. He keeps two horses and 10 head of sheep; has 3 children, and his hired labor cost him but $5.

LEGISLATIVE AID TO AGRICULTURE.

The Cortland Advocate, in publishing the proceedings of the Erie County Agricultural Meeting, calls attention to them, by the following judicious remarks:

We would call attention to the Agricultural Meeting in Erie county, published on our first page. We view with deep satisfaction this prompt and energetic action on a subject, in every point of view so important. The citizens of our county, it strikes us, have evinced an apathy on this topic, strongly at variance with their usual enterprise, and their constant attempts at advancement in every laudible undertaking. Cortland has none of those natural advantages which would enable her to become a distinguished manufacturing county. She *has* facilities however to stand in the first rank in Agricultural pursuits. If nature has not bestowed on her those properties of soil peculiarly adapted to one branch of agriculture, to the exclusion of many others, she has conferred upon her a mediocrity in *all* perhaps quite as desirable. The time is rapidly coming when our citizens will become more awake to the importance of this subject. Our valleys will wave with the more abundant crops of an improved system of tillage: our hills will be covered with flocks and herds of superior excellence. Who does not bear in mind the improvements which have taken place in the last twenty-five years? and who shall attempt to arrest all farther progress in this first and main branch of human industry? While the mechanic trades, and indeed every other department of industry are daily revolutionized, as it were, by great and important improvements, is it to be supposed that agriculture alone will remain stationary? He who thus believes, understands not the spirit of the times. The man who lives twenty-five years hence in this county, will witness the rentals of some of our towns not falling vastly short of the whole present rental of the county. As we have before remarked, our fine arable lands will give a double return under better cultivation. Our hills, now comparatively unproductive, will be covered with sheep and cattle of superior breeds, yielding as good or better a return, according to the capital invested, than the valley-land. These improvements in agriculture, to be profitable to those who introduced them, and to be placed within the reach of farmers of small capital, must be gradual; they must be brought about too, by a unity of effort. Societies are probably the best medium, and the whole will be greatly and importantly assisted by legislative aid. Premiums though comparatively unimportant in themselves, will quicken the spirit of emulation and generous rivalry, and thus confer an essential benefit. For ourselves, we see no reason why the mechanical products of the county should not also be encouraged by the awarding of premiums. We should be strongly in favor of making such a feature in the agricultural law which we hope will pass du-

ing the coming session of the legislature. We shall take up this subject again.

☞ A petition to the legislature for the passage of a bill making appropriations for the encouragement of agriculture, will be put in circulation in this county, within a few days.

SIX YEARS ROTATION OF CROPS,
AND ITS RESULTS.

The following article, which we copy from the last New-York Farmer, exhibits an excellent system of management, and is worthy the attention of every farmer:

Mr. Fleet—I have often thought if farmers would more frequently give an interchange of their views and practice in agricultural pursuits, through the medium of your excellent Magazine, the brotherhood would receive many advantages and useful hints; and being fully satisfied that I have received (even in a pecuniary point of view) more than the principal and interest on the three dollars I sent you for the New-York Farmer, as also many mental feasts, on rainy days and evenings, from its pages, besides the many useful hints my wife and daughters have received, which have added not a little to our comfort and happiness, I feel an obligation resting on me, although entirely unaccustomed to writing for the public eye, to attempt to contribute my feeble part in so good a cause.

The most of my neighbors around me still continue the old system of summer fallowing and ploughing, two, three or four times for every crop, which is usually much less than might be obtained, with judicious management, with once ploughing only, and save the loss of much labor, team, and wear and tear, and use of land by summer fallowing, (which ought to be exploded,) but also the great loss of the fermentation of the sod and other substances, which might otherwise be the best of food for the grain crop. I feel impelled, by a sense of duty, to send you an account of what I consider the great advantages of the Six Years Rotation System of Crops, and only once ploughing for any crop. I have pursued it for many years, and if it was generally adopted in this great empire state, I am convinced it would make a clear gain annually of $50,000.

From my early days I have been accustomed to agriculture, and, when a boy, would frequently ask many questions of my father, (whose memory I revere,) if such and such methods of farming would not be better than the old system. As my questions were frequent, and had, probably, become rather troublesome, he gave me, for a general answer, to note down such plans as my own brain would suggest, as an improvement, and if I lived to become a man, I could then put them in practice, and ascertain their utility.

The first of all my plans was to clear the ground of stumps and stones, and if it was but one acre a year that could be added, to let that be *well* done; for it is an important point ever to be borne in mind by the farmer, after he determines to do a thing, that it be *well* done.

I then begin my six years rotation of crops with Indian corn and potatoes. I spread my manure in the spring of the year, in its long unfermented state, from the barn yard, on the sod, before the plough, then smootly invert the sod, at the depth of 4½ inches, following with the roller, and then with St. John's double harrow effectually lengthwise. I then, with a simple machine, mark out two or three rows at a time, going through both ways, from two feet ten inches to three feet apart—plant the deep grain, long eared, eight rowed corn—get from thirty to ninety bushels shelled corn per acre, averaging only about forty-five or fifty, because much of it has no other manure than gypsum and the fermentation of the sod. My method of cultivating the corn crop is very similar to that excellent communication made by Jesse Buel, Esq. in [the Gen. Farmer, vol. 3, p. 92.] Cost of preparing the ground and tilling the corn, is $8 per acre; the stalks will pay for harvesting the corn.

The second year I plough my stalk ground in April into fifteen pace lands, sow barley, peas or oats, and harrow lengthwise first, then crosswise. If the weather is dry, and there are any lumps, pass the roller over, and open the dead furrows with the plough. Crop of oats average 45 bushels, barley 25, peas 15. Cost of tilling $4 per acre.

Third Crop. As soon as the hogs have cleared the stubble of grain, I turn the stubble all smoothly under, about four inches deep, leaving the dead furrow where the ridge was in the last crop; and between the 15th and 20th of September I spread a light coat of manure over the lands as they have been ploughed, and follow immediately with the seed, 1½ bushel to the acre, it having been previously steeped in brine of common salt twelve hours, then four quarts of lime well stirred up among a bushel of wheat, and then add five or six quarts of gypsum finely ground.

In this way of preparing seed I have not had smutty wheat in twenty years, and very seldom troubled with rust. The double harrow follows hard after the sower, (lengthwise of the furrow of course,) covering the seed and mixing the manure with the earth, before it has time to dry or waste with the wind or sun; cross harrow as before; pass over the roller, open the dead furrows, and otherwise ditch, if necessary, so that the water, in the spring of the year, will run off readily. Crop of wheat from ten to thirty bushels per acre; average eighteen or twenty; cost of tilling and carting out manure, $6 per acre. Early in March sow on the wheat twelve quarts of timothy seed, and four quarts of red clover seed, to the acre. Early in May sow a bushel of gypsum, and at wheat harvest the clover and timothy will, ordinarily, be a beautiful green rich verdure, an ell high, that would make a man smile if his head ached ever so bad. It may be pastured considerably, but not too late in the season.

Fourth year. Mow from two to three tons of hay per acre, average two and a half. Fall feed will nearly pay for cutting and securing the hay.

Fifth year. Mow again, average two tons. The fall feed again pays all expenses.

Sixth year. In May sow one bushel of gypsum per acre, and pasture the whole summer; it will afford a rich pasture, equal to two tons of hay, and be much better for the corn crops, which the next year will again commence the rotation, than if the ground had been mown the last of the six years rotation.

Perhaps I ought to give you a statement of my success, from year to year, in pursuing the course I so earnestly recommend; for it is a common remark among farmers, that the practical result is every thing.

The fifty acres I began with was a gift from my father, worth $800. The timber was chiefly removed from forty acres of it. The old system of ploughing three or four times for every crop being in practice, and the stones not having been removed, much of the soil was exhausted by hard cropping. As I became able I purchased several small farms adjoining, at twenty-four or twenty-five dollars per acre, brought them under the above method of tillage, and have now a farm of nearly 300 acres, 215 of it improved, lying together, which would now command about $40 per acre, and which yearly gives the following results.

Products of 215 acres of improved land, lying on the line between Ballston and Charlton, part in each town—being for the year 1833:

Wheat,	280 bushels, at	8s. 6d.		$297 50
Oats,	547....do....	3	0	205 00
Peas,	55....do....	5	6	37 81
Rye,	20....do....	6	0	22 50
Wool,	658 lbs.	4	0	329 00
62 Sheep, being the increase of the flock, at		16	0	124 00
600 lbs. of Butter, and 240 lbs. Cheese,				105 00
Pork, 4000 lbs. at 5 cts				220 00
Beef, 2500 lbs. at 3½ "				87 50
Corn, 624 bushels, at 4s				312 00
Potatoes, 600 bushels, at 17 cts				102 00
Cider, 50 barrels, at 8s				50 00
Winter Apples, 50 bushels,				12 00
5 Veal Calves, at 20s				12 50
Poultry and Eggs,				5 00
Rent of three out-dwelling houses on the farm,				73 00
Rent of chief mansion-house, &c.				100 00
				$2182 81
Growth of colts will pay for the team.				
Deduct for expenses below				858 62
Clear gain,				$1324 19
Expended for feed, labor, seed, wear and tear, &c.:				
208 bushels corn, fed to pork and beef, at 4s				$104 00
400 bushels potatoes to do. and other stock, at 17 cts				68 00
200 bushels oats, fed to team and stock, at 3s				93 75
24 bushels seed wheat, at 10s				30 00
35 bushels seed oats, at 3s				13 12
7 bushels seed peas, and 2 of rye, at 6s				6 75
Seed corn, and plaster or gypsum,				15 00
Wear and tear, including mechanics' work,				60 00
Labor, one man, at $16 per month, as principal				192 00
Two men, at $14 per month, for seven months each,				196 00
Two boys, at $30 each, the summer,				60 00
Taxes,				20 00
Total expenses,				$858 62

The hands all board themselves.

The clear gain is more than 15 per cent., calling all the improved land $40 per acre. The growth of the timber land will at least be 7 per cent. at the same price per acre.

Let no farmer, or farmer's son, rise from the perusal of the above plain and unvarnished statement, and say he is

"Doomed to tread the thorny ground,
Where few, he fears, are happy found."

But let him feel and act as if agriculture, managed with system, and true economy, is the most profitable, most healthy, most honorable, and best calculated to raise our thoughts and aspirations of praise to that beneficent being who gives us wisdom to cast in the "appointed wheat, and vetches, and barley, in its place;" and let us honorably sustain the cause, by faithfully doing our duty, and we and ours will be blessed, and happy.

P. S. Forgive the egotism, for one can scarcely speak of his own doings without it. A similar statement for the year 1832 lacks only $9 87 of being 15 per cent. at $40 per acre.

Respectfully, yours, W. TAYLOR.

Charlton, Saratoga co. Oct. 25, 1833.

THE SPIRIT OF THE AGE

Is beautifully described in the following extract from Kennedy's address before the American Institute:

"It is common to say that the schoolmaster is abroad; by which figure the idea is succinctly expressed, that men are more intent than formerly upon the improvements of the arts of life. The moral and physical qualities of mankind are more diffusively developed, and the light begins to fall upon the great mass. Science may not tower more high, nor genius, like the eagle in 'the pride of place,' hold a less solitary or sublime eminence; but the sun and the rain of useful knowledge, that make the moral world fruitful, and generate the stock of household virtues, shine and fall through a wider atmosphere: they visit the by-places and secret corners, and vivify the good seed within humbler enclosures than they were used to do of old. The world no longer creeps upon its way by slow and lazy steps, some half century apart, but, like an impatient courser, bounds towards its goal. It leaps from experiment to experiment with hot haste, as if time were too short and eternity too near. Science is made popular and common, and all classes seem to be busy to discard the old machinery for the new. A peace of unusual duration, throughout Christendom, has assisted this process, and rendered the competition universal, eager, and intense."

For the Genesee Farmer.

IMPROVED STOCK.

There is perhaps no portion of agricultural capital which needs improvement, and that of the most thorough kind, more than the Cattle of Western New-York. Our breeds of Cattle are to be sure, in some places, and among a small portion of our farmers, respectable; but as a whole, we are lamentably deficient in that attention to them which shall produce the most profit, either of carcase, milk, or labor, with the least possible expense. Taking it for a general rule that a poor animal consumes as much food and requires equal attention with a good one, it will be readily seen that much loss is suffered in not propagating the best kinds of Stock. This not only relates to cattle, but to horses, sheep, hogs, poultry, and all kinds of domestic animals.

Many farmers may reply, that "mine is a wheat farm, I only keep stock for convenience, and cannot afford to buy fine breeds of Cattle for what little I want. I only keep 6 or 8 cows, and a couple of pair of oxen, and it is no object for me to go into the business." But fair and softly, friend. Would you not rate off your stock growing neighbor roundly, who only raises what wheat he wants for his own family, if you should offer him clean plump seed, and he should answer, "Mine is a stock farm, I only raise my own bread, and I can't bother with your flint wheat, and all that matter. Wheat that is half smut and chess, will answer my purpose just as well, for no one eats it but my own family." Surely this man would be called a fool. But the case is as reasonable in one instance as the other. And I lay it down as a standard rule, that any farmer in selecting his stock, be it never so little, and without the least view of disposing of it, should always get the best breeds and animals that he conveniently can.

Now, what are the best breeds of cattle for the farmer to raise?

To this question many different answers will be given according to preference, prejudice, judgment, and taste, of different breeders, and the uses for which the animals are to be appropriated. For the same purposes, some prefer the Devon to the Durham, and even to all others. Some prefer the Durham to any of whatever quality; and others again prefer the best native breeds to either. I have carefully compared the written opinions of John Hare Powell, Esq., Mr. Featherstonhaugh, Gov. Lincoln, and other eminent breeders of the Durham, as well as those of Lord Somerville, Mr. Coke, and the Messrs. Hurlbut, and others, breeders of the Devon; and again the opinions of sundry individuals on the varied merits of the Holderness, Dutch, and Alderney, which I look upon as of minor importance, and merged pretty much in the more prominent characteristics of the Short Horn Durham. I have also had many conversations with numerous practical farmers and breeders, who I find hold the same varieties of opinion with the writers above named. And I have seen these different breeds of cattle with their perfections and defects, and their fine and coarse points. I am not as yet a breeder of either, but am about commencing in the business, and have taken much pains to examine different stocks, and satisfy myself of the advantages of the improved breeds, as they are termed, over each other, and of all over the common cattle of our country. I therefore have examined the subject impartially, and with a view to elicit the truth, and promote my own best interests.

In discussing this subject, it is not necessary to go into a description of the different class of animals above referred to. It is a matter of too great bulk for the present essay, and for which I feel incompetent. I presume all who have made cattle a study, fully understand the different qualities of the various breeds under discussion.

We will compare, for a few moments, the opinions of different breeders on the Durham and Devon Cattle. In addition to the authority before quoted of their preference to the Short Horned Durham, I will add an extract from a letter lately received from a friend in Albany, who is a dealer in and breeder of cattle, sheep, and swine. I esteem him an excellent judge of stock, and believe he would express no opinion but what is founded on his best judgment. He says:

"In looking over some books, I found the following account of the quantity of milk given by certain imported Short Horns, viz:

"Yellow Rose," at 3 years old, 36 quarts per day.
do. do. 4 " 38 " "
"Red Daisy" gave 32 quarts per day.
"Magdalena" " 32 do. do
"Wildair" " 32 do. do.
"Western Lady" 28 do. do. (dam of J. H. Powell's "Malcolm."
"Venus," at 16 years old, 26 quarts per day.
"Alfrede" gave 24 quarts per day—"Yarm" the same.
"Old Daisy" gave 32 do. do.
"Adelia" (first calf) gave 24 do. do.

"Gov. Lincoln's half Denton* cow has often given from 24 to 27 quarts of milk per day of excellent quality. The least quantity of milk given by her in any one day during the summer drouth on grass feed only, was 13 quarts. How will these compare with the same number of your best native cows?

"I feel perfectly satisfied that the improved Short Horns will keep in fine order upon the same quantity of food which, when given to animals of three-fourths their weight, will not be found sufficient to produce the same effects. This I state from actual experiment, and consider the observation perfectly just, as applied not only to my own animals, but to the breed generally.

"Taking this breed in every point of view, I consider them better adapted to the use of farmers than any other I am acquainted with. They arrive at maturity early, feed quick, are good milkers, and are exceedingly kind and docile.† They have more weight in the more important points, and have much less offal than *any* other cattle.

"I am aware that cattle with *short horns*, but without *pedigree*, *properties*, or *points*, of the *Improved Breed*, although sometimes purchased at great cost, have been condemned as unthrifty and ill adapted for this country. And I am also aware that some of them which have been imported with *defective* pedigrees, have been excelled, but they should not be considered as specimens of the *Improved Breed*.

"Every farmer who has animals worthy of being selected and reserved as propagators of this kind, should name them, and accurately note their ages and pedigrees. Extracts from 'Stock Registers' thus' furnished and recorded, would effectually constitute a 'Herd-book' of authority for general reference, preventing imposition—giving greater value to the good—excluding the spurious, and serving effectually the fair purposes and laudable object of both venders and purchasers.

"The Short Horns are uniformly docile and gentle in the extreme. The bulls scarcely ever becoming mischievous, and the cows and heifers permitting access under all circumstances, and for every needful purpose."

He further says:

"I send you the following extract of a letter to an American from George Coats, Esq. the publisher of the 'Herd Book' in England:

"'I trust the imported Short Horn cattle will be found to be of great use and benefit to the breeders of cattle in the United States. In this country they are held in the highest estimation. The present Chancellor of the Exchequer, Lord Althorp, has a very numerous and valuable herd of them. His Lordship is a great friend to agricultural pursuits, and also a practical farmer.'"

Again he says:

"My white cow "Dulcibella" has brought me a heifer calf, such an one as I have never before witnessed; and to give you some idea of the estimation in which I hold it, I inform you that I refused, when less than 24 hours old, fifty dollars for her! How would a Devonshire calf look by the side of that? * * is glad to get $50 for one of his two years old Devons."

So much for him of Bement's Hotel in Albany.

This may be called a fair specimen of the opinions of the advocates of Durham Short Horns. Now hear what says Mr. Hurlbut, of Winchester, Connecticut, to the Devons:

"We purchased our Devon stock of Messrs. Patterson & Caton, of Baltimore, in the autumn of 1819-20; since which time we have kept no other stock of cattle on our farms; and we have found them to answer our expectations fully in all respects. The cows are generally good for milk, and with a judicious selection, the best we have ever seen. We have as fine milkers as we have seen any where; and we live in a region *exclusively dairy*. For working oxen they certainly surpass all other breeds we have ever known; and for beef they are far superior. They are small boned, and close built, and outweigh the estimate of every one; and the quality of the beef is superior to any. They possess the agility of the horse for ordinary labor, and are yet remarkably docile. They are exceedingly hardy, and will thrive when other cattle would starve; and we have no doubt will produce more beef from a given quantity of feed than any other breed. The Devons appear rather small in size, but they tell well in the hands of the butcher.

"We sold a pair of Devon oxen which were raised on our farm, and worked till they were six years old, and then fattened one year and three months. They were butchered in New-York in March, 1831. The quarters only of the two oxen weighed 2966 lbs. averaging 1483 pounds each. The hides and tallow averaged about 250 pounds per ox. They were said by all to be the best beef ever butchered in that market."

So here we have as positive opinion in favor of the Devons.

But further. Charles Henry Hall, Esq. of Harlem, who I esteem as good a judge of stock as any gentleman in my acquaintance, a large importer and breeder, and to whom the country is much indebted for his spirited exertions in introducing fine domestic animals to our State, has an extensive stock of Durham Short Horns, and some Devons also. His working oxen are Devons; and he informed me when visiting him last summer, that he never saw any cattle so fine for the draught as the Devons. "For," says he, "they are universally red, with fine, long, high horns; are always brisk and active. They are therefore easily matched. They

* Denton was a celebrated Durham Short Horn bull imported into Boston many years ago.
Ulmus.

† The wildest and most vicious cow I ever saw, was a three year old 15-16ths blood Short Horn Durham. Ulmus.

travel in the plough or cart as fast as horses, and are altogether the most beautiful oxen I ever saw." This was said while we were viewing a fine pair of 5 year old three-quarters blood Devons on the cart-tongue. He also had a pair of large Devons on his farm at Greenbush.

"But for cows," continued he, while looking at 4 splendid Durhams, with an imported Alderney, and a Dutch cow, just passing into the yard, "I know of nothing like the Short Horns. They are so large and fine, so docile, and yield so much milk that I prefer them to all others. They grow quick, are early at maturity, are hardy and good feeders, and most excellent for the dairy."

The opinions of other gentlemen might be quoted in favor of either breed, and some much against them. One says:

"There have been several Short Horned Durham Bulls kept in this region, but our farmers universally become sick of them, and they are now all out of favor. I would not have them on any account. Certainly for these reasons: One is, their color is bad. Next, they require tender care and high feed; and lastly, they possess no purity of blood, being entirely made up of mixed breeds, and they immediately degenerate, especially by crossing with others."

Another says:

"The Devons are truly a *beautiful little* race of animals, and when you have said *that*, you have said *all*."

Some eminent agriculturists of New England, where the native breeds of cattle exist in their greatest perfection, and where the improved breeds do not generally stand so high as in the eastern and central parts of New-York, prefer the "fine Old Massachusetts Stock," as they term it, to any other. Their general color is mahogany red, dun, and brindle; either of which are considered good colors. The Hon. DANIEL WEBSTER, who is a most excellent judge of cattle as well as a profound statesman, is said to have a most select stock of the native breed on his farm, and to prefer them to all others. And certainly no country surpasses the counties of Old Hampshire and Worcester in Massachusetts for their dairies, working oxen and beef. The Short Horns were early imported into Boston, and from thence scattered through the interior of New England. But as they have not generally obtained throughout that hilly region where a hardy race of cattle are required, and oxen are used for the usual labors of the farm, and the cattle have more the appearance of having descended from the Devon Stock than any other, it may fairly be presumed that they possess some radical defect which injures them in the estimation of the New England farmers. The difficulty no doubt is this. From their heavy and large built carcases, and quiet, lazy dispositions, the males do not make good working oxen: and if they even were good for that purpose, they could hardly ever be well matched in color; and their color is almost universally either white, red and white, or spotted. A red Short Horn is rarely seen. When found, they are held in high estimation; but the color of their stock cannot be depended on. The constant tendency of it is to red and white, or pied. The following notice, extracted from the *Greenfield Mercury*, is a prominent instance of the prejudice existing against color in Massachusetts:

"Mr. Frink, of Northampton, exhibited a noble white bull at the Franklin county cattle show, which obtained only the third premium, in consequence, it is understood, of a prejudice entertained by a portion of the committee against the color. When Mr. Clay was in Northampton, he saw this bull, and offered five hundred dollars for it if delivered in Kentucky, offering also to pay a good portion of the expenses of transportation. He said that he prided himself on the stock on his farm, but that he had never yet seen any thing which would compare with this. We have heard the question asked repeatedly, how far the committee were correct in their prejudice against the color. It is certain that some of our best imported stocks were white."

This animal was no doubt a Durham, and in Kentucky where oxen are seldom if ever used for the draught, and cattle are raised only for the purposes of milk and beef, the color would form no objection. Mr. CLAY therefore judged correctly in highly estimating the value of such an animal. Under all these circumstances it will be readily seen that these different breeds of cattle possess advantages for one region of country, and disadvantages for another; and that perhaps either kind would not be exclusively the best for the whole surface of our country. In answer to the one, who refused fifty dollars for his calf at a day old, I would observe, that if the Durham cattle were universally kept throughout the country, it would be worth intrinsically no more than any other calf in proportion to its value for veal or for rearing. The estimation of its value therefore is for the breed, and the scarcity of the animal; and although he exults over the humbler Devon that is hardly of equal value at two years old, yet this last is double the price of the native, which can only be estimated at its intrinsic worth for beef, labor, or the dairy; and to each of them is allowed a fictitious value on account of its pedigree, blood, and scarcity, according to the fancy of the purchaser or owner.

While riding about the neighborhood of Boston during a few days last summer, I remarked the character of the numerous fine red milch cows with which the pastures and roads abounded. They were clean made, fine, straight horned animals, with large white silky udders, and sizeable, straight, taper teats, each looking as if she would yield her pail-full at a milking. I inquired what breed these cows were of; and was informed that they were native animals, with perhaps a cross or not, as the case might be, of imported cattle, driven in and sold for family cows from the country. These cows produce the excellent working and beef oxen of that region, and are of the same class from which the fine butter and cheese of New England is made. The farmers who raise this class of cattle, no doubt consider them the best of any for their purposes.

I have conversed with some good breeders on the utility of crossing the Durham upon the Devon, and have been answered that it will never succeed; that the offspring partakes of the good qualities of neither, and will deteriorate rapidly. Yet the handsomest animal of the ox kind that I ever saw was a three year old red Steer on the farm of C. H. Hall, Esq. at Greenbush, the offspring of a full blood Devon cow by a full bred Durham Bull. The celebrated bull "Eclipse," a mahogany red, for many years owned by L. JENKINS, Esq. of Canandaigua, and whose stock is now in high repute through all the western counties of New-York is half Devon and half Durham Short Horn. The fine points of both breeds appeared in these two animals to be united. I have seen other stock also the produce of one breed upon the other equally promising.

The question may perhaps be now asked, which breed of cattle do I prefer, for after having said so much on the subject, I might be expected to express an opinion of some sort. I readily answer that my mind is not exactly made up. Still I am inclined to believe, that when cattle are to be raised solely for their milk or their beef, the Durham Short Horns will take the lead. Their large frames, deep full bodies, and great capacity for taking on flesh; rapid growth, and early maturity, are great inducements for their being preferred by the butcher: while the fine points, distended udder, quiet disposition, and silky skin of the cows render them exceedingly valuable as milkers. They are eminently fitted for a mild climate and rich pastures, and yet are highly esteemed by many of the most wealthy and intelligent agriculturists as the best stock in our own rigorous climate. With many gentlemen of wealth and enterprise they are as highly prized as the finest blood horses, and it is considered a high compliment to own an animal whose name and pedigree appears in the "Herd Book" of England. In fact no *blood* cattle stand so high as the Durham Short Horns.

It might perhaps appear invidious to mention the names of some gentlemen to the exclusion of others who have rendered great service to the country by extensive importations of this breed of cattle: yet among those who have selected with great care and expense these fine animals, may be named C. H. HALL, Esq. of Harlem, Gen. VAN RENSSELAER of Albany, FRANCIS ROTCH, Esq. of Butternuts, Otsego county, JOHN WELLS, Esq. of Dorchester, Mass., and JOHN HARE POWELL, Esq. of Philadelphia. These gentlemen are said to have purchased at different times some of the finest animals from the stock of Messrs. Whitaker, Lord Althorp, and Mr. Wetherel, who confessedly stand at the head of the cattle breeders of England.

With such high authority therefore, I cannot but consider that any stock of cattle would be benefited by a cross with the Durham.

As to the Devons, their beautiful symmetry of form, deep mahogany color, fine and short silky hair, hardy athletic figure, and vigorous, compact, and muscular frame, must make them universal favorites where cattle are wanted for laboring purposes and fine beef. My experience will not warrant the expression of opinion of their capacity for milk, but the appearance of the cows does not indicate an extraordinary tendency that way. I should judge they were fair milkers; they are long and handsome in the body and lay on flesh remarkably well. I think from their appearance, that *according to their show*, they will out weigh the Durhams, although a much less animal in size; and the native cattle of our country must be infinitely benefited by a judicious crossing of this breed.

As the ultimate object in breeding all kinds of cattle is profit, they possess one quality of value that is rarely if ever found among the Durhams; and that is, good color. Whether it be fancy, prejudice, or whim; or whether there is an intrinsic value in red cattle over those of other

colors, I know not; but the fact is nevertheless true, that clean, straight-bodied, red cattle will sell 10 to 15 per cent. higher in the market, and among drovers, and for working oxen, and milch cows, than those possessing equally good points, but of pied, striped, or mixed colors. This is particularly the case with working oxen. A pair of well made and closely matched working cattle *will always sell* at a fair price. The Devons almost universally match well, and it is with great difficulty they imbibe other colors than red, even in mixture to low grades of blood. Certainly on the score of *color* they are the most valuable cattle we have, and of course always saleable and in demand. Another valuable quality possessed by the Devons is the exceeding length, brightness, and beauty of their horns. This it may be said is a matter of no consequence; horns are useless, and but an encumbrance any way, and why should they vary the value of cattle? I can only answer that people who deal in these animals will universally pay something for appearance. No fact is better known than that handsome horses bring more than homely ones. Yet the latter will do equally as much work. And so it is with cattle. Beauty is a quality that is always highly estimated and well paid for. Who that has any judgment or fancy among cattle would not prefer a stock of high horned stately looking oxen handsomely set off with brass or block tin tip, to a squad of bug-horned animals whose heads cannot be trained into any tolerable shape to make a respectable appearance? It is therefore for these reasons that I think among those farmers who use oxen for the draught, that the Devon stock will be most esteemed.

Having lately purchased a valuable tract of land upon which I purpose to raise cattle for the various purposes of beef, dairy, and labor, I have obtained a very fine full bred Devon Bull from the stock of C. H. Hall, Esq. who is in possession of the excellent Devon stock of the late Rufus King of Long-Island, to whom they were sent by the celebrated Mr. Coke of Norfolk, England. He is pronounced by good judges to be the handsomest animal they ever saw, and of the finest proportions, although not large. His color is deep red. I have also a full blood Durham Short Horn, bred by Israel Monson, Esq., of Boston; a large and fine animal, whose pedigree is of the first character. He combines the blood of Denton the sire of his dam, and of Wye Comet his own sire, and is mostly a deep, rich red in color with some white. Yet three-fourths of the farmers who have visited them both, declare their preference for the Devon blood to that of the Durham. But among our great breeders the Devon would be lightly esteemed, while the Durham has found a place in the forth-coming English Herd Book, and was pronounced by the Examining Committee by far the best animal at the last Brighton Cattle show, where he was exhibited, before leaving Boston for Buffalo.

My object in obtaining both these animals is to raise the two kinds of stock for the purposes to which I think they are best adapted, viz: the Devons for working oxen, and the Durhams for milch cows and beef; and also by judicious crossing, with our native stock, to improve the breed of cattle generally in this section of the country, no where more needed. I have also purchased a very fine Devon cow, a most excellent breeder, and a beautiful Holderness heifer. I further purpose in the ensuing spring to increase my improved stock by adding two or three first rate pure blooded young Durham cows or heifers; and then, with a good stock of well selected native cows, to make a fair start as a breeder of stock.

These are my views, expressed from what I have seen and learned of the two prominent breeds of improved cattle in most repute among our great cattle dealers. I may have been mistaken in my views or expressed opinions contrary to those entertained by the friends of either race of these valuable animals; and if my remarks shall draw correct opinions from others, I shall be happy in the knowledge that I have not written in vain. ULMUS.

For the Genesee Farmer.

SMUT AND CHESS.

MESSRS. EDITORS—Having seen much said in your paper on the subject of wheat turning to chess, and the cause of smut in wheat, with due deference to the opinions of others, I must beg leave to differ from most or all of those who have expressed opinions for or against the cause of wheat turning to chess; or, the cause of smut in wheat. I think they are far from being conclusive, and many of them not entitled to much consideration. Mr. L. says he has tried the experiment by sowing seed, which had been much exposed to the weather;* conveying the idea that sowing bad seed would have a tendency to produce chess. I think he has mistaken the cause—although that might have a tendency to produce smut. Some have advocated the idea, that winter killed wheat will turn to chess—if killed, that must be the end of it. I am an advocate in favor of the principle of wheat turning to chess; and if true, it must be from the effect of extreme cold and wet, suffering in the spring of the year, that causes wheat to change its nature. I will warrant Mr. L. as long as he sows wheat on good dry land, such as his garden, his wheat will not turn to chess. Mr. L. must certainly have mistaken the cause. Wheat never turns to chess on common dryish soil, unless the season is extremely wet and cold. When we have wet cold seasons, it must be notorious that we have much more chess. Several years since I sowed wheat on a piece of land that had not been tilled for the last thirty years, having a second growth of timber cleared from it. The piece contained about three acres, which was dry and sandy, except at one corner, which was cold and wet, composed of white sand, and before tilled, produced laurel, which uniformly grows on cold soil. This piece contained about four rods of ground; and while all the field except this piece was very clean from chess, the coldest part was nearly all chess. This case convinced me, beyond a doubt, that wheat would turn to chess when it suffers with extreme wet and cold.

Smut is produced from another cause. Poor sickly seed, will sometimes produce smut, unless the soil is good, and the season favorable. It has been supposed by many, that soaking seed in urine and liming it, would prevent smut; and it has that tendency, because it is a very strong manure, which makes the wheat come up strong and healthy; and unless the soil is bad and the season unfavorable, it will be free from smut. The principal cause of smut, is extreme suffering from poverty of soil, and poor sickly seed, aided by extreme dryness and heat. Poor soil, aided by heat and drouth, has the tendency to stop sufficient nutriment from passing up the stalk to give flour to the kernel—hence it is that wheat in new countries is more apt to smut, than in old, possessing the same soil and climate, because the seed is frequently badly cleaned, and the land badly prepared, and frequently sowed out of season. Sometimes on new lands, where the burn is bad, there is a looseness of soil, or muck on the ground, so thick that the wheat does not get sufficient roots to withstand the hot dry weather; and, as will be observed, smut heads are generally six or eight inches below the heads of wheat, and from this cause there is a failure of nutriment to give flour to the kernel. Wheat sowed in the spring is most likely to smut, because dry hot weather frequently comes on before the roots get a strong hold of earth.

If Mr. L. wishes to try to raise chess, I think he will find no difficulty in succeeding; but he must not sow wheat in his garden for that purpose, unless it is very wet and cold. If he will take a wet, cold piece of land, where the water will stand on it in the spring of the year, so that the wheat will suffer extremely with the cold and wet, and stick stakes by the wheat planted, so that there can be no mistake—if his wheat does not turn to chess, then I will confess I may be mistaken. I hope he will give a fair trial on such ground as I have recommended.

RUSSELL WHIPPLE.

Pultneyville, Dec. 3, 1833.

* Gen. Farmer, vol. 3, p. 329.

For the Genesee Farmer.

PLANTING MACHINE.

MR. LUTHER TUCKER—I observed a notice in the Farmer of the 28th September, by Mr. Samuel Allen, of a Planting Machine, made and used in Copenhagen, Lewis co. Can you inform me if the machine has been introduced into your section of country? and whether it merits the high recommend given it by Mr. Allen? If it does, I should consider it a most valuable farming implement, as it would enable the farmer to cultivate, more extensively, the Mangel Wurtzel, and Ruta Baga; two of the most valuable roots raised, for feeding stock. If you have not yet introduced the above machine among you, would it not be for the interest of some mechanic, at your place, to manufacture them? I am confident he would find a ready market for a number of them the ensuing spring. Yours, respectfully.

Canandaigva, Dec. 13, 1833. A SUBSCRIBER.

[We are not aware that the machine alluded to has been introduced into this section. We should be glad to hear more about it from those who have used it.]

For the Genesee Farmer.

ECONOMY OF FUEL.

I have a small open stove which requires shorter wood, to lie horizontally, than is necessary for our other fires; and we have been in the practice of taking wood from the common pile, without attending to its length; for when it was too long to lie flat in the stove, we set it slanting upwards, often at an angle of forty-five degrees.

I have observed however, that when the wood lies flat, it gives out much the most heat; and it is my opinion, though without having made any direct experiment, that there is nearly a difference of two to one in the benefits derived from the same quantity of fuel.

When I come to reflect on the subject, it appears reasonable that such should be the consequence. A part of the wood is placed quite in the throat of the stove, which greatly increases the draft, and hurries the rarified air up the chimney. A good bed of hot coals is the main point for a stove of this kind in cold weather; and such a bed is not readily obtained from slanting sticks. In short, the *nearer* the wood is to the bottom plate of the stove when it is burnt, the *greater* will be the quantity of heat radiated into the room.

A FARMER.

STRAW CUTTING MACHINES.

It was remarked by Sir John Sinclair that "the introduction of new agricultural implements into a district, is often a matter of the greatest difficulty, owing to the ignorance, the prejudices and the obstinacy of farm servants and laborers. Many farmers, therefore, very absurdly retain their old implements, though convinced of their inferiority, rather than sour the temper of their laborers, by attemping to introduce new ones. In many cases, however, they have succeeded by attention, by perseverance, and by rewarding their laborers, who have been induced to give the new machines a fair trial."

The farmers of New England are too enlightened and have too much regard to their own best interests to be under the dominion of such profitless prejudices. Accordingly we find not only that there is a very reasonable and increasing demand for new and improved agricultural machines, tools, &c. but that the Committees of our Agricultural Societies, not only make honorable mention of such machines, but by awarding premiums give more substantial proofs of the estimation in which they hold such products of well directed skill and inventive ingenuity.

Impressed with these sentiments we were much pleased to perceive by the Report of E. Hersey Derby, and Daniel Dreadwell, Esqs. that the march of improvement in this field of invention, keeps pace with its progress in other quarters, and that successful efforts are making to facilitate and render more effectual the labors of the cultivator, which compose the foundation of all improvement, in all arts and sciences.

Among the premiums awarded by the Committee above named was one for WILLIS' IMPROVED STRAW CUTTERS. We shall not give a description of this implement, but merely point out, concisely, some of the advantages resulting from the use of a straw cutter.

Mr. Thomas Williamson in a communication to the Bath Society, [England] on the use of chaff, or cut hay for feeding horses, remarks that "one hundred weight of hay was found to yield 20 bushels of chaff, pressed into the measure and piled as high as it could be safely carried; consequently each bushel weighed about 5 1-2 lbs. It was found that five horses would eat 12 bushels of chaff in 24 hours, and that *somewhat more than half the usual quantity of food was saved by having it cut.*"

Mr. Benjamin Hale, formerly proprietor of a line of stages running between Newburyport and Boston, has given a statement, published in the *Massachusetts Agricultural Repository*, vol. 10, p. 400, by which it appeared that the total saving in using a straw cutter nine months, to wit at Newburyport four months, and at Salem five, was $780 97 cts.

In the Memoirs of the Philadelphia Agricultural Society, a valuable paper was published entitled *Notices for a Young Farmer*, written by Judge Peters, formerly President of that Society. In this the following passage occurs: "*cut* or *chaff* your hay, straw, corn tops or blades and even your stalks wtth a powerful straw cutter and you will save a great proportion, which is otherwise wasted, or passed through the animal without contributing to its nourishment. One bushel of chaffed hay, at a mess, given in a trough, three times in twenty-four hours, is sufficient for a horse, ox, or cow. A bushel of chaffed hay, lightly pressed, weighs from 5 to 5 1-2 pounds.—A horse, or horned beast thrives more on 15 lbs. thus given, than on 24 or 25 lbs. as commonly expended (including waste) in the usual mode of feeding in racks, to which troughs properly constructed are far preferable."

The celebrated agriculturist, Arthur Young, observed that "the practice of giving hay cut with a mixture of straw, instead of feeding in the common way with hay, is recommended at all events to as great a degree as can be effected, for the saving is unquestionable. Mr. Page of Cobham, in feeding his stock, gives no hay or straw but what has been cut into chaff. At the expense of only £1. he added a mill-wheel to his chaff-cutter, by which means a boy and a little pony cut 20 bushels per hour. This practice he finds so profitable, that he earnestly recommends it.

"For sheep, attention must be paid to the troughs in which it is given, to see that they be so boarded as to prevent the wind from blowing the chaff out, this is effected in Lord Clarendon's sheep yard, in Hertfordshire, by a boarding, which covers the sheep's heads, while feeding in the troughs."

Other authorities might be cited in favor of cutting hay and other fodder for stock, but anything more on that topic, we believe would be superfluous. It is also well known that cattle greatly prefer short straw to long, and by mixing a little barley, oats, or Indian meal with straw, or other coarse fodder, cut about as short as oats, they will eat the mixture with eagerness, when they would reject the coarser parts without such preparation.

The advantages of cutting fodder are that it save labor in masticating and fitting the food for digestion. Cattle's teeth are not so sharp as the steel of a fine edged tool, and when their food is rendered fine by artificial means, it will be still more minutely divided by the grinders of the animal; and the smaller the particles, the greater the proportionate surface presented to the operations of the gastric juice of the stomach. But theory apart, practice has shown the advantages of these machines; and that more than one-third of a farmer's hay, &c. may be saved by their use. And we have reason to believe that *Willis' Improved Straw Cutter* is one of the most valuable of this very important class of agricultural implements.—*N. E. Farmer.*

From the Providence Republican Herald.

GO TO WORK THE RIGHT WAY.

ADDRESSED TO FARMERS.

I am sorry there is so much need of the admonitions I am about to give. Depend upon it, you do not "work it right," or you would make your farms just twice as valuable as they now are. Many of you farm too much. You would find it much more profitable to farm twenty acres WELL, than forty by halves. The last season I made my grounds produce at the rate of one hundred bushels of Indian corn to the acre. Is this not much better than a common crop of thirty or forty bushels? You will certainly say it is, and with the same breath ask how I manage to produce so plentifully? My land being much infested with ground mice, or moles, and overrun with grubs and other vermin, I put on early in the month of March, about seven bushels of salt to the acre, which thoroughly destroys all kind of vermin, being an excellent strong manure, and ploughed and harrowed the ground over and over, until it became completely mellow; I then had every corn hole filled with long manure, and after dropping my corn, (which had previously been soaked in warm water,) I scattered a pint of lime over every hill, and then covered the whole with a little mellow earth. In about a week the corn began to come up plentifully, after which I nursed it with the plough and hoe, every other week, for eight weeks, at which time it was as high as my head, and not a spire of it was destroyed either by frost, grub, or birds. My other things I manured, and equally well, and I have been amply paid for all my extra care and trouble, as I raised more than twice as much per acre as any of my neighbors, and did it in much less time. I mean I got all my harvesting done two or three weeks before many others. This is accomplished in a great measure by redeeming time; rising between three and four o'clock in the morning, then if the day be sultry and hot, I lie by from 12 to 3, and rest; I then feel refreshed and able to work till quite dark. This I call "working it right," whereas should I lie in bed until the sun be up and shame me, haunt the tavern at night, drink too much whiskey, but half manure, half plough, half plant, half nurse, half harvest, and do every thing by halves, I surely should not "work it right," nor get half a crop.

I shall now conclude by giving you, for further consideration, a few excellent observations, from a wiser head, perhaps, than my own, and hope that every brother farmer will do likewise.

"I often say to myself, what a pity it is our farmers do not work it right. When I see a man turn his cattle into the road to run at large, and waste their manure during a winter's day, I say that man does not work it right. Ten loads of good manure, at least, is lost in a season, by this slovenly practice—and all for what? For nothing indeed but to ruin his farm.

"So, when I see cattle late in the fall and early in the spring rambling in a meadow or mowing field, poaching the soil and breaking the grass roots, I say to myself, this man does not work it right.

"So, when I see a barn yard with a drain to it, I say this man does not work it right, for how easy it is to make a yard hollow, or lowest in the middle, to receive the moisture and all the wash of the sides, which will thus be kept dry for the cattle. The wash and moisture of the yard mixed with any kind of earth, or putrid straw, is excellent manure, yet how much do not our farmers lose by neglecting these; in fact, they no not work it right.

"When I see a farmer often going to a retailer's store, with a bottle or jug, or lounging about a tavern, or wrangling about politics, or quarreling with and defaming his neighbor's good name, I am certain such a man does not work it right."

AN OLD FARMER.

Rochester Prices Current.

Wheat, per bu.	87½	Apples,	25a50
Flour, per brl.	5 00	Lard, cwt.	9 00
Pork, mess, brl.	15 00	Cheese do	5a8 00
do prime do	12 00	Butter	11a15
Beef pr cwt.	2 50a3 25	Hams do	8a9 00
Pork, hog	4 75a5 50	Pot Ash, cwt.	3 75
Oats,	26	Pearls,	4a4 25
Corn,	50	Hides, cwt.	5 00
Rye,	62	Sole Leather,	19a22 00
Barley,	50a56	Harness do	25 00
Hay, per ton,	7a9 00	Upper p side, drs'd	2 75
Grass Seed,	1 00	Bridle, do-	300a350
Potatoes,	19	Calf Skins, lb.	75a0 88

MONROE GARDEN AND NURSERY,

GREECE, NEAR ROCHESTER, N. Y.

THE subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses. Vines, Creepers, Herbaceous, Perennial Plants, Bulbous Roots, &c.

Also, a few hundred of the Morus Multicaulis or Phillipine Mulberry, the white Italian Mulberry by the hundred or thousand, English Hawthorn Quicks, Grape Vines of both native and foreign varieties, mostly of large size, for sale by the single vine, hundred or thousand at reduced prices.

The subscriber has a large Green House well filled with a large collection of choice Green-House Plants in good condition.

All orders, by mail or otherwise, will be promptly attended to, and packages delivered in Rochester or at the mouth of Genesee River.

ASA ROWE.

From the Spanish, by Professor Longfellow.

ART AND NATURE.

The works of human artifice soon tire
The curious eye; the fountain's sparkling rill,
And gardens where ordained by human skill,
Reproach the feeble hand, the vain desire,
But, O! the free and wild magnificence
Of Nature, in her lavish hours, doth steal,
In admiration, silent and intense,
The soul of him who hath a soul to feel.
The river moving on its ceaseless way,
The verdant reach of meadows fair and green,
And the blue hills that bound the sylvan scene,
These speak of grandeur that defies decay,—
Proclaim the Eternal architect on high,
Who stamps on all his works his own eternity.

"IMPROVEMENT OF SOCIETY, BY THE DIFFUSION OF KNOWLEDGE."

From this new work of Dr. Dick, from which we have heretofore given some extracts, we make the following selections:

SCIENCE.

"The tower of Pisa, in Italy, leans sixteen feet out of the perpendicular, so that strangers are afraid to pass under it; but as the plummet or line of direction falls *within its base or foundation*, it is in no danger of falling, if its materials keep together; and hence it has stood in this state three hundred years. But were an additional erection, of any considerable elevation, to be placed upon its top, it would undoubtedly soon tumble to ruins."

"Were the number of such persons increased but a thousand-fold, so that for every twenty scientific investigators now existing, twenty thousand were employed in surveying the various localities, aspects and operations of nature, in the animal, vegetable, and mineral kingdoms, on the surface of the earth and the ocean, and in the celestial regions,—*hundreds* of new facts would, in all probability, be brought to light, for *one* that is now discovered by the present contracted circle of scientific men, from which new and important conclusions in the arts and sciences might be deduced."

SCIENTIFIC LEISURE.

"Every man, under a well-regulated government, enjoys a certain portion of leisure from the duties of his station, which in too many instances is wasted either in listless inaction, or in the pursuits of folly and dissipation. This leisure is all that is requisite for the purpose in view. It would only be requisite that, during its continuance, the train of their thoughts should be directed into a channel which would lead them to more pleasing associations, and more substantial pleasures, than the general current of human thought is calculated to produce."

"The system of nature, though directed in its general movements by a few simple laws, is too grand and extensive, and too complex in many of its parts, to be grasped by a few individuals, after a cursory survey; and, therefore, to attempt to comprehend its multifarious revolutions, phenomena and objects within the range of theories founded on a partial view of some of its detached parts, is not only an evidence of presumption and folly, but tends to damp our ardor in prosecuting the only sure path which leads to discovery, and to frustrate what appears to be one of the designs of the Creator, namely, *to grant to the intelligent inhabitants of our globe a gradual display of his stupendous plans in the universe as the reward of their incessant and unwearied contemplation of his wondrous works.*"

"The observations made during a single voyage across the Atlantic, by a single observer, M. Humboldt, on the aspect of the Antartic region of the heavens—the peculiar azure of the African sky—the luminous meteors of the atmosphere—the tides, the currents, and the different colors of the ocean, and other phenomena which happened to present themselves to his view—are of more value to the scientific world than the observations of ten thousands of other beings who for a series of years, have traversed the same regions."

SCIENCE AND EXPERIMENT.

"Now what is it that enables us to investigate the works of God, and to contemplate the system of nature *in its true light?* It is *Science*, combined with observation and experiment. And what is Science, considered in a theological point of view? It is nothing else than a rational inquiry into the arrangements and operations of the Almighty, in order to trace the perfections therein displayed. And what are the truths which science has discovered? They may be regarded as so many rays of celestial light descending from the Great Source of Intelligence to illuminate the human mind in the knowledge of the Divine character and government, and to stimulate it to still more vigorous exertions in similar investigations, just as the truths of revelation are so many emanations from the 'Father of Lights,' to enlighten the darkness and to counteract the disorders of the *moral* world; and both these lights must be resorted to to direct our inquiries, if we wish to attain the clearest and most comprehensive views of the attributes of the Divine mind."

"The *specific gravity* of these two substances is nearly as 37 to 33; that is, the nitrogen is a small degree *lighter* than the oxygen. Were this proportion reversed, or, in other words, were the oxygen of the atmosphere a small degree lighter than the nitrogen, so that the nitrogen might become a little heavier than common air,—as this gas is thrown off continually by the breathing of men and other animals,—it would perpetually occupy the lower regions of the atmosphere, and be productive of universal pestilence and death."

ADAPTATION OF NATURE.

"Now, it is a fact that, from the elephant to the mite, from the whale to the oyster, and from the eagle to the gnat, or the microscopic animalcula, no animal can subsist without nourishment. Every species, too, requires a different kind of food. Some live on grass, some on shrubs, some on flowers, and some on trees. Some feed only on the roots of vegetables, some on the stalk, some on the leaves, some on the fruit, some on the seed, some on the whole plant; some prefer one species of grass, some another. Linnæus has remarked, that the cow eats 276 species of plants, and rejects 218; the goat eats 449, and rejects 126; the sheep eats 387, and rejects 141; the horse eats 262, and rejects 212 and the hog, more nice in his taste than any of these, eats but 72 plants, and rejects all the rest. Yet such is the unbounded munificence of the Creator, that all these countless myriads of sentient beings are amply provided for and nourished by his bounty."

"*Evaporation* is a process by which water and other liquids are converted into vapor. The matter of *heat*, combining with water, renders it specifically *lighter*, by which means it rises and mixes with the atmosphere, where it remains either *invisible*, or assumes the appearance of clouds. In this state it occupies a space fourteen hundred times greater than in its ordinary liquid state, and consequently is much lighter than the atmospheric air into which it rises. It has been calculated that, from an acre of ground, during twelve hours of a summer's day, more than 1600 gallons of water have been drawn up into the air in the form of vapor. From the whole surface of the ocean there arise, every twelve hours, no less than 30,320,500,000,000, or more than thirty millions of millions of cubic feet of water, which is more than sufficient to supply all the rivers that intersect the four quarters of the globe. This immense body of vapor is formed into clouds, which are carried by the winds over every part of the continents; and, by a process with which we are still unacquainted, is again condensed into rain, snow, or dews, which water and fertilize the earth. Now, if this wonderful and extensive process of nature were to cease,—we might wash our clothes, but centuries would not dry them, for it is evaporation alone that produces this effect—there would be no rains nor dews to fertilize our fields, and the consequence would be, the earth would be parched, and the vegetable productions which afford us subsistence would wither and decay,—the rivers would swell the ocean, and cause it to overflow a portion of the land, while, at the same time, their sources would soon be completely exhausted, and their channels dried up."

GIANT TREES.—Among the oldest and largest trees in France is an oak in the burial-ground of Allonville, which measures, above the roots, upwards of thirty-five feet round, and, at the height of a man, twenty six feet. A little higher up, it extends to a greater size, and, at the eighth foot from the ground, enormous branches spring from the sides, and spring outwards, so that they cover a vast space with their shades. The hight of the tree does not answer to its girth; the trunk from the roots to the summit, forms a complete cone; and the inside of this is hollow throughout the whole of its hight. Several openings, the largest of which is below, afford access to this cavity. All the central parts having been long destroyed, it is only by the outer layers of the alburnum, and by the bark, that this venerable tree is supported; yet it is still full of vigor, adorned with abundance of leaves, and laden with acorns.—The lower part of the hollow trunk has been transformed into a chapel of six or seven feet in diameter, carefully wainscoted and paved, and guarded by an open iron gate. Above and close to the chapel is a small chamber, containing a bed; and, leading to it, there is a staircase, which twists round the body of the tree. At certain seasons of the year, service is performed in this chapel. The summit has been broken off many years, but there is a surface at the top of the trunk, of the diameter of a very large tree, and from it rises a pointed roof, covered with slates, in the form of a steeple, which is surmounted with an iron cross. Williams, in his "Vegetable World," from which we derive these facts, observes that over the entrance to the chapel there is still visible an inscription which states that it was erected by the Abbe du Detroit, curate of Allonville, in the year 1696.

Even this memorable tree is not without its peer. We have heard of nothing like it in America; but at Oakley, in Bedfordshire, the seat of the Marquis of Tavistock, there is an oak, now in perfect health, which contains about five hundred and twenty-seven cubit feet of timber, and the branches overspread a space of five thousand eight hundred and fifty superficial feet of ground.

The Chestnut trees grow still larger. In Gloucestershire, there is one measuring 52 feet round and still continuing to bear fruit, which is known to have stood there in the year 1150. It has been called for ages "the Great Chestnut of Totworth." Brydone and other travelers in Sicily say that the "famous chestnut-tree of a hundred horse" measures the enormous circumference of 177 feet; and that some travelers have dug about it, to see if it were a cluster of several trees, or only one; and they have found that, although divided, at or near the surface, into five branches, they are all united in one root.—*Bost. Jour.*

A MYSTERY CLEARED UP.—It appears from a calculation in the Phil. Sentinel, founded on experiments with a mechanical instrument, that the valve of the glottis, which envolves with the emission of air from the wind-pipe, will move at least treble as quick in the case of the female as in the male; & will perform 576 movements for the lowest note, and 1620 for the highest, in one second. This unravels the whole secret of female volubility. We always thought there was no mistake about it.—*Bost. Jour.*